

Product Specification Sheet

**Human Xeroderma Pigmentosum Type G (XPG) Antibodies**

**Cat #** XPG11-M,

Mouse Monoclonal Anti-Human XPG IgG

**SIZE:** 100 ug

Xeroderma pigmentosum (XP) is characterized high sensitivity to UV light and high incidence of skin cancer fall into seven complementation groups, XPA to XPG, and are lacking a functional helicase, endonuclease, or lesion-recognizing proteins involved base excision repair. Xeroderma pigmentosum type G (**XPG**) is one of the rarest and phenotypically heterogeneous forms of genetic disorder. XPG gene encodes an acidic protein with an estimated mol wt ~133 kDa that confers normal UV-resistance. XPG is a member of the flap endonuclease 1 (FEN-1) structure-specific DNA repair endonuclease family responsible to UV-induced DNA repair. Human XPG makes the 3' incision during nucleotide excision repair of DNA. The enzyme cleaves model DNA bubble structures specifically near the junction of unpaired DNA with a duplex region. A 29-aa region of human XPG (981-1009 aa) contains the PCNA binding activity. A conserved Arg in XPG (Arg992) is crucial for its PCNA-binding activity. Replication protein A (RPA) binds specifically and directly to two excision repair proteins, Xeroderma pigmentosum damage recognition protein XPA and the endonuclease XPG.

**Source of Antigen and Antibodies**

<b>Antigen</b>	Purified <b>Human recombinant XPG protein</b>
<b>Ab Host/type</b>	Mouse, monoclonal IgG2a/k Aff pure IgG ( <b>cat # XPG11-M</b> ) purified over Protein A/G Agarose
<b>2-ab</b>	<b>Goat Anti-mouse IgG-HRP conjugate</b> Cat # 40320 (AP, biotin, FITC conjugates also available)
<b>-ve control IgG</b>	Cat # 20008-1, Mouse (non-immune) Serum IgG, purified, suitable for ELISA, Western, IHC as -ve control

**Form & Storage**

**Affinity pure IgG**

100 ug/500 ul  
solution lyophilized powder  
Buffer: PBS pH 7.5, 0.2% BSA, 0.05% sodium azide  
**Reconstitute powder** PBS at 1 mg/ml

**Storage**

**Short-term:** unopened, undiluted liquid vials for less than a week at 4oC.

**Long-term:** at -20C or below in suitable aliquots after reconstitution. Do not freeze and thaw and store working, diluted solutions.

**Stability:** 6-12 months at -20oC or below.

**Shipping:** 4oC for solutions and room temp for powder.

**Recommended Usage**

**Western Blotting:** An initial concn. of 1-5 ug/ml is recommended for Western. Users must optimize antibody dilution depending upon the nature of samples and other technical conditions. The antibody recognizes >185 kDa in DiFi and other cells and tissues.

**Histochemistry & Immunofluorescence:** Not tested. An initial concn. 2-20 ug/ml is recommended for IHC.

**Immunoprecipitation:** 5-10 ug/mg of protein lysate:

**Specificity & Cross-reactivity**

XPG11-M recognizes human XPG. Antibody cross-reactivity in various species has not been studied.

**General References:**

1. Cloud KG et al (1995) Mut. Res. 347, 55-60; O'Donnovan et al (1994) J. Biol. Chem. 269, 15965-15968; Aboussekhra A et al (1995) Exp. Cell Res. 221, 326-332; Vilpo JA et al (1995) Mol Cell. Biol. 15, 290-297; Gary R et al (1997) J. Biol. Chem. 272, 24522-24529; Boulikas T et al (1996) Anticancer res. 16, 693-708.

**\*This product is for In vitro research use only.**

**Related material available from ADI**

Antibodies to MGMT, hNTH, Ape, mutY, OGG1, XRCC1, DNA Ligase, Polymerase, XPG, ORC1 etc are available.

Anti-Rabbit IgG-HRP Conjugate and ECL Reagents

**Western Blot Recycling Kit (Strips blots in 5 minutes)** and re-use the same blot with multiple antibodies

XPG11-M

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